

Date: Friday, 7/4/2008 12:48:17 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : X-TUBE EXTRUSION
Job Number : 40271	
Estimate Number : 11108	
P.O. Number :	Part Number : D6008180
This Issue : 7/4/2008 S.O. No. :	Drawing Number : D6008 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : PURCHASED PARTS	Drawing Revision : A
Previous Run : 39735	Material :
Written By : <u>HA 08 07 07</u>	Due Date : 7/20/2008 Qty: 20 Um: Each
Checked & Approved By : <u>HA 08 07 07</u>	
Comment : Est Rev: 04.06.15 Added tolerance to Step 2 KJ/JLM	

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: 6707C208107/07(20)

a) Order as per Dwg D6008

b) Material: 3.250 x 0.438 wall 7075-T6/T6511 (WW-T-7007 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube

c) Minimum ultimate tensile strength = 77 ksi

d) Minimum tensile yield strength = 66 ksi

e) Tolerance are per ASTM B210 (see details on Dwg D6008)

f) Material certification required

2.0

D6008180P

Crosstube extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
 Crosstube extrusion

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

AS 08/07/18(x26)20

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6005

508/7/18(x26)20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: X-TUBE EXTRUSION

Job Number: 40271

Part Number: D6008180

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



ALM
8-7-18



7823

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



DP

8-7-23

26

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

Back Hall

DP

8-7-23

8.0

QC21

FINAL INSPECTION/W/O RELEASE



08/07/23

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mf 08-07-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

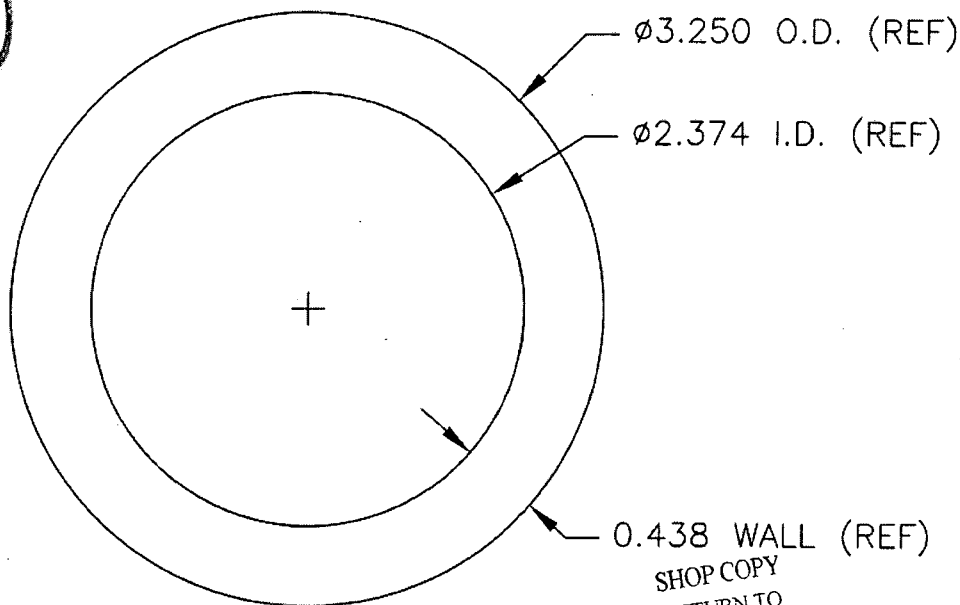
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6008	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *[Signature]*



NOTES

- 1) D6008-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 180" LONG TUBE: D6008-180

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 40271

- 2) MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.044 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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Customer PO	PO. 00006063
ALUnna no.	30014/1
Date:	07.09.08

Dart Aerospace PO. 00006063
D 6008-180 Made in Germany
Dest. Hawkesbury Ont. Canada

free from live plant pests

free from live plant pests										Boxdimension		
Item no.	Box no.	OD (inch)	ID (inch)	Wall (inch)	Net Weight (lbs)	Tare lbs	Gross Weight	Pieces	lengths (ft)	Lengths (inch)	Width (inch)	height (inch)
1	1	3,250	2,374	0,438	1845	267	2112	26	15	185,039	22,441	22,441
					1845	267	2112	26		1,527 m³		

**ALUnna****Abnahmeprüfzeugnis 3.1 - EN 10204:2004****Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004****Kunde:** Dart Aerospace Ltd.

Client:

1270 Aberdeen Street
K6A1K7 Hawkesbury, ON Canada**Zeugnisnummer:** 972/08

Cert No. / No. du certificat:

Bestellnummer:

PO00006063 Replacement

Order No. / No. de commande

67078

Auftrag:

30014/1

Our Reference/Notre Reference:

Produkt:

Rohre nahtlos gepresst

Product / Produit:

Tubes seamless extruded

Spezifikation:

-; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6008

Specification:

Werkstoff:

7075

Zustand:

T 6511

Alloy/Alliage:

Temper/État

Abmessung

3,250 INCH x 2,374 INCH x 0,438 INCH x 180,000 INCH

Size / Dimension

D6008-180 3.250 x 0.438 x 180

Kennzeichnung

ALUnna - Cert No. 972/08 - 7075 - T 6511 - Cast No. 1250 - AMS - QQ-A - 200/11 - 3.250" OD X 0.438" Wall - Heat

Marking/Marquage:

Lot No. 1798 - ALUnna Order Conf. No. 30014/1-1 PO. 00006363

Lieferung

pcs.

lbs

Country of Manufacture: Germany

Delivered Material / Matériel délivré:

26

1845

1. Chemische Analyse**Chemical Analysis / analyse chimique**

		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/	min.			1,2		2,1	0,18	5,1						
Cast No.	max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
1250/08		0,095	0,182	1,431	0,049	2,431	0,187	5,815	0,039	0,003	0,0220	0,0001	0,0012	0,0001

Hydrogen content: 0,11**ccm/100 g Al** Elements without indication < 0,01 %**country of melt manufacturer: Germany****2. Mechanische Eigenschaften****Mechanical Properties / Valeurs Mécaniques**

Anforderungen	tensile	yield	elongation	elongation	Hardness	Heat Lot No.
Requirements	(Rm) ksi	(Rp0,2) ksi	2" %	A %	HB	
min.	77,0	66,0				
max.						
1	85,405	78,300	9,0			1798 - 26 pcs.
2	86,130	79,315	10,0			
3	86,130	79,460	9,0			

Ergebnis der Prüfungen:

Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results:

We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats:

Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande